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THE ACADEMY OF SCIENCES OF THE BELORUSSIAN SSR AT THE TIME OF THE 30TH ANNIVERSARY OF SOVIET BELORUSSIA

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On 1 January 1949, the Belorussian people marked the glorious day of the 30th Anniversary of the founding of the Belorussian Soviet Socialist Republic. The formation of the Belorussian SSR is the living fulfillment of the Leninist-Stalinist national policy. It was made possible only by the triumph of the Great October Socialist Revolution in Russia. Thanks to the tremendous assistance of the Soviet government, and of Comrade Stalin personally, Belorussia was converted during the years of the Stalin five-year plans from a backward borderland of Tsarist Russia into a flourishing industrial and kolkhoz, honored republic, a constituent and indivisible part of the great Soviet Union.

Scientific research work has assumed great importance in the republic during the years of Soviet rule. Eminent scientists and a large number of higher-educational institutions, scientific-research institutes, including the 20-year-old Academy of Sciences Belorussian SSR, have arisen in the republic. In the Belorussian SSR, as in the entire Soviet Union, the most favorable conditions for the maximum development of all fields of science have been created. The achievements of science are being extensively utilized for the development of the economy and of culture, for the further consolidation of socialism and the gradual conversion from socialism to communism.

Comrade Stalin, the great leader and teacher of the Soviet people, coryphaeus of science, gave Soviet scientists the task of not only attaining, but of exceeding in the near future the scientific achievements of the capitalist countries. The necessary conditions for a really free development of a progressive science serving the cause of progress, the cause of building and consolidating the new communist society, the cause of strengthening the peace, and for the struggle for the progressive Marxist-Leninist ideology, have been created in the Soviet Union.

The goals of Soviet science, outlined by Lenin and Stalin, the brilliant leaders and theorists of the glorious Bolshevist Party, have also been reflected in the development of science in the Belorussian SSR. Soviet science has made substantial gains in the Belorussian SSR in the past 30 years. Its development began with the creation of educational institutions, which represented at one and the same time both the forge in the training of national cadres and the center of scientific research on the major problems of the national economy and culture of the Belorussian SSR.

As early as 1919, the Goretskiy Agriculture Institute was restored, having been closed down by the Tsarist government as a result of the uprising of the Belorussian peasants led by Kostus Kalinovskiy in 1863. Many of the Institute's students also took part in this uprising. It took more than 50 years and, in general, the completion of the Great October Socialist Revolution to restore one of the first agricultural higher-educational institutions created in our country.

The Belorussian State University was opened in 1921. The decree on the founding of the university was signed by the great

Lenin, and the Belorussian State University took the name of Lenin in conjunction with the 30th Anniversary of the Belorussian SSR. Shortly after, scientific-research institutes of agriculture, industry, and Belorussian culture were founded. At the same time, the various scientific-research institutes within the framework of the individual government departments began to develop.

The number of higher-educational institutions and scientific-research institutes has continually expanded every year, and, as of 1941, they totaled 26 higher-educational institutions and 54 scientific-research institutions with hundreds of professors, docents, and scientific workers engaged in scientific research in various branches of learning. Independent higher-educational institutions have evolved from the faculties of the university, including the Minsk Institute of Medicine, the Belorussian State Polytechnical Institute which now bears the name of the great Stalin, the Juridical Institute, the Institute of the National Economy, and others.

On 1 January 1929, the Academy of Sciences Belorussian SSR was founded. It is necessary to note in this connection that in the development of the higher-educational institutions and scientific-research institutes of the Belorussian SSR, tremendous assistance was given by the great Russian people, whose best representatives and individual outstanding scientists headed the chairs in the university and other institutions and developed productive scientific-research work to meet the needs and requirements of the national economy and culture of the Belorussian SSR. Among them are the late Professor Shkatelov, eminent chemical engineer, whose works were highly praised by D. I. Mendeleyev; the late Professor Prilezhayev, outstanding chemist, who is known for his works on oxidation

processes which played a not inconsiderable part in the formulation of synthetic chemistry; professors Nikol'skiy and Pertsev, historians, who worked more than 25 years in Belorussian and in particular, in the university and the Academy of Sciences Belorussian SSR; professor-physicians Melkiye and Leonov, who for more than a quarter of a century have worked toward the creation of medical cadres in Belorussian and toward the solution of scientific-medical problems; professor T. N. Godnev, active member of the Academy of Sciences Belorussian SSR, a great specialist in the field of plant physiology and one of Timiryazev's pupils; professor Korotkov, corresponding member of the Academy of Sciences Belorussian SSR and a great specialist in the field of wood chemistry, and others.

The training of scientific cadres from among the Belorussian people has been started in the higher-educational institutions both of Belorussia and of the Soviet Union. Among those active in this work are: Professor Rogovoy, pedologist, corresponding member of the Academy of Sciences, Belorussian SSR and a specialist in the field of agricultural organization; Professor Lupinovich, active member of the Academy of Sciences, Belorussian SSR and vice president, specialist in the field of agricultural mechanization; Professor Matsepuro, active member and academician-secretary of the Academy of Sciences, Belorussian SSR; Professor Prokopchuk, active member of the Academy of Sciences, Belorussian SSR, specialist in the field of skin and venereal diseases, and many others.

The party, the government, and comrades Lenin and Stalin, have devoted a tremendous amount of attention to the development of science and socialist culture in the Belorussian SSR. The theory of Marxism-Leninism has penetrated widely among the popular masses.

The scientific workers, who have mastered this theory, have become adept in the proper and expeditious accumulation of scientific facts and in drawing conclusions from them in accordance with the principles of dialectical materialism. The service of Soviet science to the needs and tasks of the building of socialism has conditioned its unprecedented success. The Academy of Sciences, Belorussian SSR, marking its 20th Anniversary together with the 30th Anniversary of the Belorussian SSR, has played no small part in the development of science in the republic.

The German-fascist usurpers inflicted great harm on the economy and socialist culture of the Belorussian SSR, ruined thousands of kolkhozes, hundreds of rayon centers, great oblast centers, and Minsk, the capital of the republic. Scientific-research institutions, higher-ecucational institutions, including the Academy of Sciences Belorussian SSR, also suffered barbarous destruction. The academy's buildings were ruined by the Germans, equipment was carried off or destroyed, the library was partially wiped out and partially carted off to Germany by the fascists.

Despite extraordinary difficulties and the necessity of restoring many industrial objects, kolkhozes, rayon and oblast centers, and cultural institutions, the government of the republic devoted much attention to building up the material resources of the Academy of Sciences Belorussian SSR. At present, the laboratory building, in which the most important experimental institutes of the Academy are accomodated, has been completely restored and is being put to use. Part of the main building, which houses the humanities institutes and the entire apparatus of the Presidium, has also been restored. The Academy has restored and even augmented its library volumes

and at the present time possesses an extremely extensive library, which in June 1948 was given the name of V. G. Belinskiy.

At present, the Academy consists of three departments: physico-mathematical and technical sciences, biological, agricultural and medical sciences, and the social sciences. There are all together 13 scientific-research institutes and two sectors in the Academy. The present institutes completely reflect the needs of the national economy and culture of the Belorussian SSR. By way of example, it is sufficient to point out the existence in the Academy of such institutes as the Institute of Socialist Agriculture, the Institute of Mechanization and Electrification of Agriculture; the Institute of Land Improvement, Drainage, and Water Resources, which is playing such a large part in the grandiose plans for draining and rendering usable more than 4 million hectares in the Polessye lowlands; the Institute of Peat which is playing an exceptional role in the development of the mechanization of peat extraction, peat chemistry, and effective power and chemical utilization of peat; the Institute of Chemistry which is devoting particular attention to the problems of wood chemistry; the Institute of Geological Sciences, which is conducting intensive research on the problems of mineral resources, "agrorudy" [minerals added to soil to counteract soil deficiencies], and various materials which can be used as construction materials; the Institute of History, which for the first time has developed the most complete history of the Belorussian SSR, now printed in dummy form; the Institute of Literature, Language, and Art, which is working successfully on the problems of the history of Belorussian literature, has written a textbook for the senior grades of secondary school, and which has crowned its work in the field of language with the composition and publication of a Belorussian

orthographic dictionary, a dialectology, rules of orthography, and others; the Institute of Economics, which is working on problems of industrial and agricultural economics of the Belorussian SSR, including those immediate problems related to increasing the turnover of working cpaital in the large-scale enterprises of the Belorussian SSR, and others.

There are 26 active members and 27 corresponding members of the Academy of Sciences Belorussian SSR. To give an idea of the volume of scientific research work which is of tremendous economic and cultural importance to the Belorussian SSR, I shall give a brief review ofthe chief research work in the different branches of sciences. The period of the Stalin five-year plans has radically transformed the Belorussian SSR, while industrialization of the republic has demanded an increase in geological research directed toward the expansion of the mineral and raw material base for a growing industry. For the first time in the Belorussian SSR, studies were made of the laws regarding the formation and occurrence of mineral resources. Geological investigations established the fact that the territory of the Belorussian SSR is located in the western limit of the so-called Eastern-European shelf. In a geological sense, that part of the shelf which is within the boundaries of the Belorussian SSR, is characterized by the presence of many geostructural elements, by complex sharp folds of crust strata, by areas with fractures and vertical displacements. In the opinion of geologists, fuel and other valuable mineral resources may be found because of the above-mentioned structural elements. This shows that the territory of the Belorussian SSR is one of the prospective regions of the Soviet Union in respect to the presence and

discovery of new types of mineral resources.

Investigations in the field of study of underground waters and hydrogeological investigations related to the study of underground waters of the Polessye lowlands and an explanation of their role in the swamping of this area were intensively carried out.

A great body of investigations was made on the utilization of local fuel raw materials -- peat and its extensive adaptation to the power industry. This demanded, in particular, much work on the part of power engineers in the field of boiler and combustion engineering. Various designs of furnaces for consumption of lump and cut peat, as well as methods for artificially drying peat, have been proposed.

Investigations were carried out on the study and estimate of water resources of the Belorussian SSR for hydroelectric power. The result was the compilation of a summary of the chief data on rivers of the Belorussian SSR.

Peat has been the subject of investigations, not only as a source of power, but also as a by-product for the extraction of numerous and extremely valuable chemical semifinished products. The ever-increasing volume of mined peat necessitated a number of studies on the development of methods for maximum mechanization of all processes of extraction, turning, drying, and transportation of peat. Whereas in 1913, the amount of peat extracted in the Belorussian SSR was measured only in thousands of tons, at present millions of tons of peat are being extracted, and in addition, millions of tons of peat are being utilized as fertilizer, flooring, and household fuel.

In the field of dynamic chemistry, the most important gain was the development of Prilezhayev's reaction, the essence of which consists in his development of an original method of oxidizing unsaturated compounds by organic peroxides, which made possible the successful determination of the structure of organic compounds and a new method of obtaining a number of new organic compounds.

Studies were also made of secondary and tertiary acetyl alcohols and their derivatives. Within this line of investigation, a method of obtaining caffein from tea residues was developed.

In the field of physical chemistry, particularly in recent times, the work on kinetics and catalysis, investigations on spectography of surface phenomena and on adsorption were widely developed. Several of these investigations pertained to biocolloids, in particular to the study of the albuminous fractions of the blood of various animals and of humans.

In the field of inorganic chemistry, a series of investigations were devoted to the study of the phosphorites and sands of the Belorussian SSR for the silicate industry. A large group of investigations touched on branches of chemical engineering, particularly on the following: the technology of the chemistry of albumens and oils -- the utilization of white lupine (belka-lyupin), resulting in the extraction of veneer glues, which have been introduced industrially; the utilization of vegetable white lupine to obtain artificial fiber and for food uses; the method of extracting oil from lupine seed to obtain drying oil, and others.

Geological surveys of "agrorudy" in the Belorussian SSR, particularly the search for deposits of clays, sands, dolomitized lime-

stones and chalks, demanded corresponding chemical calculations and the development of chemical technology.

A series of studies were also made on the chemistry of food substances for the discovery and utilization of existing and new types of raw materials in the food industry, the improvement of quality, and an increase in production output. Under this same investigative plan, a series of works in the field of industrial food microbiology and biochemistry were carried out. Cultures of heat-tolerant bacteria were studied in particular detail, and it was established that a certain type of microbe can ferment more than 90 percent of cellulose at a temperature of 50-55 degrees Centigrade.

Interesting and varied investigations were made in the field of wood chemistry. The obtaining of domestic rosin and turpentine was related to the investigations made by Shkatelov and his students. A series of investigations were devoted to pine flotation oil and the problems of wood hydrolysis. Of great practical value was the study of the utilization of wood damaged by rot. This raw material has proved profitable in a technical and economic sense for obtaining ethyl alcohol.

A series of investigations was also made in the field of the utilization of woody annual plants and wild grasses by the cellulose and paper industry. The expediency of utilizing peat wastes for obtaining ethyl alcohol was also ascertained and technological methods were worked out.

Investigations on tree tapping were concerned not only with conifers but also with deciduous trees. For example, maple trees were tapped on a sufficiently wide scale to be of immediate industrial

importance, while the experimental tapping of birches proved the possibility of obtaining valuable alcohols and highly-useful syrups from birch sap.

A number of investigations were also carried out in the field of physics. Just recently, a series of investigations on magnetism were developed and the magnetic method of production inspection -- the so-called magnetic method of defect detection -- which has been adapted to industry, was worked out. Extremely interesting research on a metallography problem is being conducted in complete coordination with large-scale industrial enterprises such as the tractor and automobile plant, which is now under construction and in partial operation.

Belorussia has many swamps, the total area of which is 4,500,000 hectares. Most of these swamps are connected with the Pripyat' River watershed. As early as 1875, the eminent explorer, V. V. Dokuchayev, turned his attention to the Poless'ye lowlands and its swamps. He published an article, which is among the works of the St. Petersburg Society of Naturalists, on the subject: "The Problem of Swamp Reclamation in General, and in Particular, the Reclamation of Poless'ye."

The existence in the Academy of Sciences, Belorussian SSR of a special Institute of Land Improvement, Drainage and Water Resources with its three experimental swamp stations situated in various swamp areas, has resulted in the development of varied investigations, beginning with investigations of the causes of the swamping of mineral soils and the change in plant association and the causes for swamping in Pripyat' River watershed, and ending with the utilization of the reclaimed area for raising various agricultural

and industrial crops. A number of investigations were devoted to the theory of swamp formation and the classification of existing swamps. The study of swamps necessarily called for a series of investigations on the problem of land improvement.

The first reclamation work in Belorussia was carried out in 1856-1863 by workers of the Goretskiy Agronomical Institute, who laid a drain of ceramic pipe through an area totalling approximately 132 hectares. Reclamation was carried out on a much wider scale by Colonel Zhilinskiy's expedition which was begun at the end of the 1870's and continued for more than 20 years. This expedition dug 4,660 meters of canals. However, Zhilinskiy's expedition bore the stamp of the special class interests of landowners and, for the most part, converted the swamped areas into meadowland. All this work was literally a drop in the bucket as compared with the total swamp area and the economic needs which evolved in the post-October period.

The great Stalin plan for the transformation of nature has been carried into the plan of tree plantings for field protection and in the creation of the state forest shelter belts and is being widely carried out in the remaking of the natural conditions of the Poless'ye lowlands. Since the advent of Soviet authority, large-scale state farms, such as "Tenth Anniversary of the Belorussian SSR," which was built on the former swamp, "Mar'ino," have been organized in several, formerly impregnable, swamps of the Poless'ye lowlands.

The Institute of Agricultural Mechanization Academy of Sciences, Belorussian SSR has evolved a number of new machines and

and improved existing ones, such as the one-bottom and two-bottom plows, machines for planting, harvesting, and stacking kok-sagyz root, an improved potato-picking machine, and a number of others. A trench-digger and a drain-boring machine have been developed for the mechanization of reclamation operations.

The biological sciences, including agriculture and medicine, have achieved considerable success in the Belorussian SSR. In the pre-Revolutionary period, the flora of the Belorussian SSR remained almost entirely unknown, if we discount separate and therefore occasional expeditions or the individual reports of nature lovers. In the post-October period, numerous geobotanic expeditions were organized which collected valuable systematized data which served as the basis for compilation of all collected material and the publication of the comprehensive work, "Flora of the Belorussian SSR," in four volumes. The first volume of this work has already been published on the occasion of the 30th Anniversary of the Belorussian SSR; the second volume is at the printers, and the third and fourth are being prepared for publication.

The study of bryophyta has pargicularly progressed in connection with the study of the peat and timber resources of the republic. The study of plant life of the Belorussian SSR has been concerned not only with systematization and morphology, but also with plant physiology. The assortment of tree varieties for planting in population centers has been expanded as a result of the study of winter-hardiness of woody and fruit plants. The problems of the acclimatization of new crops have been studied and, in particular, seven species of grape which have good prospects for successful cultivation under the conditions of the Belorussian SSR, have been found.

The work of a group of Belorussian physiologists on the study of the structure of floroplasts, their content of pigments, of a gradual accretion of substances which play a part in assimilation, as well as of certain vitamins, particularly pro-vitamin A, has been of particular interest. Subsequently, the basic problem of the activity of the apparatus of plants which absorb the sun's energy and convert it into organic properties, was studied.

A great deal of work on the systematic study of the animal life of Belorussia has been done and is continually expanding. Mammals and birds have been rather fully studied, as well as several classes of invertebrates, of which the mollusks, dipterous and hymenopterous coleoptera have been most intensively studied.

The dynamics and graphic distribution of game animals and the geographic distribution have also been studied in detail, as well as the problem of the acclimatization of industrially important mammals, such as the river beaver, elk, otter, marten, and others. There are two great game reservations in the Belorussian SSR: the Belovezhskaya forest and the Berezinskiy reservation.

In the field of agricultural sciences, a series of investigations has been made on the soils of the Belorussian SSR as the basis of agricultural production and through whose proper utilization it is possible to obtain high and steady yields of agricultural crops. The work of soil has turned to the study both of the geography and the genesis of soil and soil-forming rock, as well as to soil fertility. Several investigations have been devoted to the study of fertileness of soils was carried out by the organization of continuous observations, by laboratory tests and field vegetation tests of the basic soil types of the republic.

Large-scale investigations of the soils of different kolkhozes, state farms, regions served by machine-tractor stations, sorting sectors, and experimental fields, were also made. On the basis of the study of acidity of soils of the Belorussian SSR, an acidity map was drawn up and methods for liming the soils were worked out. At the same time, methods for the use of a different fertilizer, including the use of peat as a fertilizer, were also worked out.

An interesting series of investigations was made on the development of a system of fertilization of peaty soils applicable to different agricultural crops; in particular, the role of copper-bearing fertilizer, which has eliminated the injurious influence on plant growth of a high nitrogen content in peat soils, was made clear.

Problems of agricultural engineering were the subject of an extensive series of investigations. Particular attention was given to the problems related to the cultivation of the most prevalent and economically valuable grain crops. For example, in summing up the tests on the sowing of winter wheat, it was found that the latter represents a crop which gives the Belorussian SSR a high, steady harvest on the basis of high-level agricultural engineering.

Numerous investigations were devoted to winter rye, an old agricultural crop of Belorussia, with the purpose of improving agricultural engineering methods which would provide a high and steady yield of this crop. No less attention was given to the problem of the cultivation of the potato, both for food and for fodder and industrial purposes, as well as to investigations in the field of flax cultivation as the chief industrial crop for textiles.

Similar attention in the development of agricultural engineering was given to hemp which has proved a highly-productive crop, not only in peat bogs, but also in meadow bottom land and in mineral soils.

Kok-sagyz is a new industrial crop to Belorussia, and therefore, a series of investigations was devoted to the development of the agricultural-engineering methods pertaining to the cultivation of kok-sagyz, both in peaty and mineral soils, for the purpose of obtaining high yields.

An entire series of investigations was devoted to the study of the fodder crops, primarily red clover and timothy. Particular attention was given to the study of the mildly-alkaloid lupines which have proved to be a crop with extremely good prospects, particularly in light sandy soils. The important fodder qualities of such lupines were also established. Lupine as a green fertilizer is gaining a more permanent place in the Belorussian SSR each year.

The investigations on the problem of selective seed-growing of field-grown agricultural crops embraced an extremely large section of agricultural sciences; a network of experimental stations, in cooperation with a scientific institute of the Academy of Sciences Belorussian SSR, was concerned with these investigations. The first period of these investigations was devoted to the study of local varieties and to ascertaining the biology of different crops and the variability of economically valuable characteristics under the influence of natural and historical factors and agricultural-engineering methods; while the subsequent period of investigations, based on the theoretical and practical data of Michurin and Lysenko,

was devoted to obtaining new varieties of winter rye, barley, potato, flax fiber, an entire series of new fruit crops, etc.

Michurin varieties were used in 193 combinations in selection work on fruit crops. All the tremendous scientific-research work on the selective seed-growing of agricultural crops was successful because it was conducted on the basis of the Michurin-Lysenko doctrine. The defeat of the anti-Michurin trend in biology opened the greatest prospects for the creative development of all branches of biological, agricultural, and medical sciences in the interests of the building of socialism.

In addition to the above-outlined investigations in the field of agricultural sciences, highly-intensive investigations on the problems of the utilization of drained land for agricultural purposes were carried out.

The working out of the agricultural engineering problems in the cultivation of agricultural crops on peat soils is in a class by itself; for the mechanical transference of all that has been developed pertaining to mineral soils has no place here, for the depth of plowing, the findings on the role of various fertilizers, to the selection of various agricultural crops which show the most effective growth and highest and steadiest yields in peat soils. Here, then, is that group of problems which were the subject of investigations in that particular branch of agricultural science.

Kok-sagyz cultivated in peat soils, with early autumn plantings in hollows as proposed by Academician Lysenko, gives high yields. As early as 1939, individual kolkhoz workers obtained 50 centners of kok-sagyz root and 43 kilograms of kok-sagyz seed per

hectare. The Minsk experimental swamp station obtained 100 centners per hectare of kok-sagyz root using good agricultural-engineering methods.

The sugar beet, giving a yield of 500 centners and higher per hectare, is a crop with extremely good prospects as the investigations for peat soils revealed. The sugar content of the beet grown in peat soils, as the investigation showed, can be considerably increased by changing the conditions of mineral feeding, particularly by changing the corresponding combinations of phosphorus, potash, and magnesium.

The yield of hemp in peat soils is two to three times greater than in mineral soils, while the application of copper-bearing fertilizers increases the strength and the yield of fiber two or three times. The tobacco crop, yielding up to three tons of harvested leaf per hectare, is another crop with extremely good prospects.

Potato, the old crop of mineral soils, is giving high yields in peat soils as well. Those defects which are peculiar to potatoes grown in peat soils, such as hollowness and reduction in starch, can be easily overcome by the use of the methods of selection and improvement of agricultural engineering.

Diseases of crops, animals, and humans are the plagues of many branches of economics and a successful fight against them is a major state-level problem. In this connection, an entire series of investigations was carried out on combatting diseases both of crops and of animals.

The science of crop protection has a long way to go, but in

the Belorussian SSR, this science has been quite successfully developed. The diseases of individual agricultural crops, such as flax, potato, and others, have been studied. Various chemical and biological means of combatting fungi, parasites, and other crop diseases, particularly potato diseases such as potato canker, potato fungus, and others have been studied. Extensive investigations on combatting undulant fever in agricultural animals and the development of methods for active vaccination against undulant fever, as well as other diseases, have been carried out.

The achievements of medical science in the Belorussian SSR have been especially great. They are the results of scientific-research activity of the Minsk and Vitebsk medical institutes and a number of scientific-research institutes within the Ministry of Health Belorussian SSR, in close co-operation with the Institute of Theoretical Medicine of the Academy of Sciences Belorussian SSR and with other biological institutes of the Academy.

It is sufficient to point out that in pre-Revolutionary Belorussia, disease was a constant companion of the people and led to a high mortality rate among children, to a shortening of the average life span, and to the continual prevalence of various epidemic diseases such as typhoid fever and others. This has been completely eradicated. At present, the disease plica polonica has been eliminated as the inevitable characteristic of the inhabitants of the Poless'ye. Children's illnesses caused by infectious children's diseases have been sharply reduced.

Despite the German usurpers' destruction of the medical and health system and their intentional spreading of diseases among the population of the Belorussian SSR, these consequences of the German

occupation have been completely eradicated and the high standard of health of the Soviet people has attained its prewar level.

The establishment of Soviet authority in Belorussia and the national liberation of the Belorussian people alone have made possible the development of social sciences and the successful expansion of a whole series of vital problems of history, linguistics, literature, philosophy, ethnography, economics, and others. Belorussian scholars have achieved considerable success in creating a culture, national in form and socialist in content, on the basis of Marxist-Leninist theory in the solution of problems of the social sciences. In this, the above-mentioned institutes of the Academy of Sciences Belorussian SSR, under the leadership of the Bolshevist Party and of the TsK VKP(b), have played the decisive role. It will be sufficient, in addition to what has already been said, to introduce as examples several facts from investigations in the field of linguistics.

A grammar of the Belorussian language has been compiled by the Belorussian linguists, dialectological work is being carried out successfully, as well as work on the content and treatment of literary classics. In the field of linguistics, it has been necessary to overcome those nationalistic perversions which occurred in linguistics in connection with the counter-revolutionary activity of the nationalists, who sought to use this field of learning in their own nationalistic counterrevolutionary interests. The compilation ofthe Belorussian orthographic dictionary and the Russian-Belorussian dictionary was a great achievement in the field of linguistics.

Considerable success has also been achieved by investigations in the field of Belorussian literature, both of the pre-Revolutionary and the Soviet periods. Systematic studies of ancient literary sources, as well as the cultural sources belonging to the 16th through the 19th centuries, have revealed a wealth of Belorussian national culture and, in a majority of cases, a popular-democratic character and high-level specimens of literary creativeness, in the fields of poetry and prose.

The compilation of textbooks on the history of Belorussian literature for the senior grades of secondary school and the publication of literary sources with appropriate commentaries was one of the most important studies carried out by the Institute of Literature, Language, and Art of the Academy of Sciences, Belorussian SSR and by the Belorussian literary critics.

Considerable success has also been achieved in the field of archeology. More than 50 archeological expeditions resulted in the accumulation of a tremendous amount of material, as well as the discovery in the republic of a higher paleolithic culture. Two dwelling places of men of the later paleolithic age, of 20,000-30,000 years BC, were discovered near the Sozh' River. Many dwelling places belonging to the epipaleolithic age (end of the paleolithic age) or to a higher caveman stage were also discovered.

As a result of the investigations of early villages and settlements, it has been possible to show, on the basis of irrefutable facts, the autochthony of their populations, which negates the migration theory in relation to the ancient Slavic population in the territory of Belorussia.

Many investigations have been made also in the field of ethnography and the oral poetic creative work of the Belorussian people. Many ethnographic exhibits, compiled and studied under the direction and with the direct assistance of Yakub Kolas, Vice President of the Academy of Sciences, Belorussian SSR and peoples' poet, have been collected. Also with his cooperation, a systematic work on the folklore of Belorussia has been started. Much collecting and scientific work has also been carried out in the field of Belorussian people's art.

Special investigations of Soviet folklore, including that of the Great Fatherland War period, the folklore of the partisans in particular, has led to the incorporation of this material into a number of collections. One collection is devoted to the picturing in Soviet Belorussian folklore of Lenin and Stalin, the great leaders of the Soviet people.

Extremely intensive work was done on the development problems of Belorussian historiography and the history of the Belorussian people. From these historical studies, theses on the history of Belorussia from ancient times to the Soviet period and a printer's dummy of the major work on the history of Belorussia from ancient times, including the Soviet period, up to the 30th Anniversary of the Belorussian SSR, were printed in 1948. The Institute of History, Academy of Sciences, Belorussian SSR also published the first two volumes of documents and materials on the history of Belorussia. In addition to this, the outstanding historians, Professor Nikol'skiy, active member of the Academy of Sciences, Belorussian SSR, the foremost specialist in the field of the history of the ancient East, and Professor Pertsev, specialist in general history

and active member of the Academy of Sciences, Belorussian SSR, also conducted a number of investigations with their students on these sectors of history, completing them by printing a number of monographic publications.

As the above list of Academy institutes shows, other branches of the hummanities, namely the development of economic sciences and the problems of the history of social and philosophical thought were also subjects of scientific investigations. These investigations concluded with a number of articles and monographs on problems of development of industry in the Belorussian SSR, problems of economics of different agricultural and industrial crops, such as the sugar beet and potato, problems of the organization of labor in leading kolkhozes and tractor brigades, and others.

The above is far from a complete listing of the investigations which were conducted by the principal institutes of the Academy ofSciences, Belorussian SSR, and the number of investigations made in conjunction with other institutes and experimental stations, but it shows the tremendous success achieved in the development of Soviet science and socialist culture in Belorussia.

The Soviet system and the socialist forms of economy were the basis for the successful development of Soviet science. The Party of Lenin and Stalin, and Comrade Stalin himself, have played an exceptionally great role in the development of the Belorussian state and of Soviet science in the Belorussian SSR. The combination of all the above-listed factors in their dialectical-materialistic relationship determined the high level and success of Soviet science in the Belorussian SSR.